

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2009-0518; Directorate Identifier 2009-SW-22-AD; Amendment 39-15940; AD 2009-13-01]

RIN 2120-AA64

Airworthiness Directives; Sikorsky Aircraft Corporation Model S-92A Helicopters

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD) for Sikorsky Aircraft Corporation (Sikorsky) Model S-92A helicopters. That AD currently requires removing all main gearbox (MGB) filter bowl assembly mounting titanium studs (titanium studs) and replacing them with steel studs. This amendment requires the same actions as the existing AD as well as changes to the Rotorcraft Flight Manual (RFM). This amendment is prompted by an accident, by recent RFM changes made by the manufacturer that were not available when we issued the existing AD, and by our determination that certain MGB Normal and Emergency procedures in the RFM are unclear, may cause confusion, and may mislead the crew regarding MGB malfunctions, in particular the urgency to land immediately after warning indications of loss of MGB oil pressure and oil pressure below 5 pounds per square inch (psi).

Replacing the titanium studs is intended to prevent their failure, which could result in rapid loss of oil, failure of the MGB, and subsequent loss of control of the helicopter. Changing the RFM procedures is intended to clarify and emphasize certain Normal and Emergency procedures to give the crew the best available information in the event of certain MGB malfunctions.

DATES: Effective July 1, 2009.

The incorporation by reference of Sikorsky Alert Service Bulletin No. 92-63-014, Revision A, dated March 20, 2009, was approved previously for incorporation by reference by the Director of the Federal Register on April 27, 2009 (74 FR 18977, April 27, 2009).

Comments for inclusion in the Rules Docket must be received on or before August 17, 2009.

ADDRESSES: Use one of the following addresses to submit comments on this AD:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

You may get the service information identified in this AD from Sikorsky Aircraft Corporation, Attn: Manager, Commercial Technical Support, mailstop s581a, 6900 Main Street, Stratford, CT, telephone (203) 383-4866, e-mail address tsslibrary@sikorsky.com, or at <http://www.sikorsky.com>.

Examining the Docket: You may examine the docket that contains the AD, any comments, and other information on the Internet at <http://www.regulations.gov>, or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Operations office (telephone (800) 647-5527) is located in Room W12-140 on the ground floor of the West Building at the street address stated in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: John M. Coffey, Flight Test Engineer, FAA, 12 New England Executive Park, Burlington, MA 01803, telephone (781) 238-7173, fax (781) 238-7170.

SUPPLEMENTARY INFORMATION: On March 23, 2009, we issued Emergency AD 2009-07-53 for Sikorsky Model S-92A helicopters, which requires, before further flight, removing all titanium studs that attach the MGB filter bowl assembly to the MGB and replacing them with steel studs. That action was prompted by the failure of 2 studs that were found broken during a fatal accident investigation in Canada. Before the accident, the manufacturer was investigating a July 2008 incident that also involved broken studs. In both cases, the broken studs resulted in rapid loss of MGB oil. The failures have been tied to fretting and galling of the original titanium studs. That emergency AD was published as Amendment 39-15886 on April 27, 2009 (74 FR 18977). This AD continues to require removing all titanium studs and replacing them with steel studs.

Since the fatal accident and since issuing AD 2009-07-53, Sikorsky has issued revisions to the Normal and Emergency procedures of the RFM. We have determined that these revisions are necessary because the existing procedures are unclear, may cause confusion, and may mislead the crew regarding MGB malfunctions, in particular the urgency to land immediately after warning indications of loss of MGB oil pressure and oil pressure below 5 psi. This action does not mandate the procedures the pilot must perform in an emergency, but requires making changes to the RFM to clarify and emphasize the Normal and Emergency procedures addressing specified MGB malfunctions, thus giving the pilot the necessary information to make an informed decision. We are superseding the existing AD to include the most recent RFM revisions because the revisions were not available when we originally issued AD 2009-07-53.

We have reviewed Sikorsky Alert Service Bulletin No. 92-63-014A, Revision A, dated March 20, 2009 (ASB), which describes procedures for removing titanium studs and replacing them with steel studs. We have also reviewed the RFM revisions and, after full coordination with Sikorsky, approved them on May 13, 2009. Sikorsky has since assured us that they have provided the revised RFM procedures to all affected operators. The RFM revisions are as follows:

- SA S92A-RFM-000 Revision No. 4,
- SA S92A-RFM-002 Revision No. 10,
- SA S92A-RFM-003 Revision No. 10,
- SA S92A-RFM-004 Revision No. 8,
- SA S92A-RFM-005 Revision No. 7,
- SA S92A-RFM-006 Revision No. 8, and
- S92A-RFM Supplement No. 3, Revision No. 2.

In addition to the RFM revisions, we have also reviewed associated Errata Sheets, dated June 4, 2009, that provide corrections to those RFM revisions; however, we are not mandating that they be incorporated.

Since an unsafe condition has been identified that is likely to exist or develop on other Sikorsky Model S-92A helicopters of the same type design, this AD supersedes AD 2009-07-53 to require, before further flight, removing all titanium studs and replacing them with steel studs. These actions must be accomplished by following the specified portions of the ASB described previously. Because the critical unsafe condition can adversely affect the structural integrity and controllability of the helicopter, AD 2009-07-53 remains in full effect until the effective date of this AD.

Making the Normal and Emergency RFM revisions that were not available when we issued AD 2009-07-53 is required within 10 hours time-in-service. The short compliance time is required because certain procedures in the existing RFM may be misleading, presenting an unacceptable level of risk, and because the required RFM revisions are already approved by the FAA and available to operators, imposing a minimal burden. Therefore, it is found that notice and opportunity for prior public comment hereon are unnecessary and contrary to the public interest, and that good cause also exists for making this amendment effective in less than 30 days.

We estimate that this AD will affect 35 helicopters of U.S. registry. Replacing the studs will take approximately 6 work hours per helicopter to accomplish at an average labor rate of \$80 per work hour. In accordance with the ASB, required parts and tooling are available at no cost. Making the changes to the RFM will take a minimal amount of time and cost. Based on these figures, we estimate the total cost impact of the AD on U.S. operators to be \$16,800, assuming there are no parts and tooling costs.

Comments Invited

This AD is a final rule that involves requirements that affect flight safety and was not preceded by notice and an opportunity for public comment; however, we invite you to submit any written data, views, or arguments regarding this AD. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2009-0518; Directorate Identifier 2009-SW-22-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the AD. We will consider all comments received by the closing date and may amend the AD in light of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of our docket Web site, you can find and read the comments to any of our dockets, including the name of the individual who sent the comment. You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this AD. See the AD docket to examine the economic evaluation.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by removing Amendment 39-15886 (74 FR 18977, April 27, 2009), and by adding a new airworthiness directive (AD), Amendment 39-15940, to read as follows:



FAA
Aircraft Certification Service

AIRWORTHINESS DIRECTIVE

www.faa.gov/aircraft/safety/alerts/
www.gpoaccess.gov/fr/advanced.html

2009-13-01 Sikorsky Aircraft Corporation: Amendment 39-15940. Docket No. FAA-2009-0518; Directorate Identifier 2009-SW-22-AD. Supersedes AD 2009-07-53, Amendment 39-15886, Docket No. FAA-2009-0351, Directorate Identifier 2009-SW-08-AD.

Applicability: Model S-92A helicopters, certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To prevent failure of a main gearbox (MGB) filter bowl assembly mounting titanium stud (titanium stud), which could result in rapid loss of oil, failure of the MGB, and subsequent loss of control of the helicopter; and to clarify and emphasize certain Normal and Emergency procedures to give the crew the best available information in the event of certain MGB malfunctions, accomplish the following:

(a) Before further flight, for all Model S-92A helicopters with a MGB housing assembly, part number (P/N) 92351-15110-042, -043, or -044, that is not marked with "TS-062-01" near the P/N:

(1) Remove the titanium studs by following the Accomplishment Instructions in Sikorsky Alert Service Bulletin No. 92-63-014, Rev. A, dated March 20, 2009 (ASB), paragraph 3.A.

Note 1: Figure 1 of the ASB contains guidance for removal and installation of the studs

(2) Visually inspect the tapped holes and the MGB housing lockring counterbore for damage. If you find damage in the tapped holes or in the MGB housing lockring counterbore, contact the Boston Aircraft Certification Office for an approved repair.

(3) Install steel studs and mark the MGB housing as "TS-062-01" near the P/N by following the Accomplishment Instructions in the ASB, paragraph 3.C.

(b) Within 10 hours time-in-service, for all helicopters regardless of MGB housing assembly P/N:

(1) Revise the Normal and Emergency procedures sections of the Rotorcraft Flight Manual (RFM) by making the following changes, approved May 13, 2009:

RFM	Remove	Remove	Insert
SA S92A-RFM-000 Part I	Temporary Revision (T-Rev)No. 1., Revised Main Gearbox Emergency Procedure	Page 2-12, and Sub-Section 7 "Gear Box Malfunctions" from Section III	Page 2-12, and Sub-Section 7 "Gear Box Malfunctions" from Section III of SA S92A-RFM-000, Revision No. 4.
SA S92A-RFM-002 Part I	T-Rev No. 5, Revised Main Gearbox Emergency Procedure	Page 2-13, and Sub-Section 7 Gear Box Malfunctions from Section III	Page 2-13, and Sub-Section 7 "Gear Box Malfunctions" from Section III of SA S92A-RFM-002, Revision No. 10.

SA S92A-RFM-003 Part I	T-Rev No. 4, Revised Main Gearbox Emergency Procedure	Page 2-13, and Sub-Section 7 “Gear Box Malfunctions” from Section III	Page 2-13, and Sub-Section 7 “Gear Box Malfunctions” from Section III of SA S92A-RFM-003, Revision No. 10.
SA S92A-RFM-004 Part I	T-Rev No. 4, Revised Main Gearbox Emergency Procedure	Page 2-12, and Sub-Section 7 “Gear Box Malfunctions” from Section III	Page 2-12, and Sub-Section 7 “Gear Box Malfunctions” from Section III of SA S92A-RFM-004, Revision No. 8.
SA S92A-RFM-005 Part I	T-Rev No. 3, Revised Main Gearbox Emergency Procedure	Page 2-13, and Sub-Section 7 “Gear Box Malfunctions” from Section III	Page 2-13, and Sub-Section 7 “Gear Box Malfunctions” from Section III of SA S92A-RFM-005, Revision No. 7.
SA S92A-RFM-006 Part I	T-Rev No. 2, Revised Main Gearbox Emergency Procedure	Page 2-13, and Sub-Section 7 “Gear Box Malfunctions” from Section III	Page 2-13, and Sub-Section 7 “Gear Box Malfunctions” from Section III of SA S92A-RFM-006, Revision No. 8.
S92A-RFMS No. 3	N/A	Sub-Section 7 “Gearbox Malfunctions” from Section III	Sub-Section 7 “Gear Box Malfunctions” from Section III of S92A-RFM Supplement No. 3, Revision No. 2.

All paragraphs of subsection 7 “Gearbox Malfunctions” starting with paragraph 7.0 are affected.

Note 2: Inserting the following revisions, approved on May 13, 2009, and their associated Errata Sheets, dated June 4, 2009, into the RFM, as applicable, satisfies the requirements of this AD:

- (i) SA S92A-RFM-000 Revision No. 4,
- (ii) SA S92A-RFM-002 Revision No. 10,
- (iii) SA S92A-RFM-003 Revision No. 10,
- (iv) SA S92A-RFM-004 Revision No. 8,
- (v) SA S92A-RFM-005 Revision No. 7,
- (vi) SA S92A-RFM-006 Revision No. 8, and
- (vii) S92A-RFM Supplement No. 3, Revision No. 2.

(c) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Manager, Boston Aircraft Certification Office, FAA, Attn: John M. Coffey, FAA, 12 New England Executive Park, Burlington, MA 01803, telephone (781) 238-7173, fax (781) 238-7170, for information about previously approved alternative methods of compliance.

(d) Special flight permits will not be issued.

(e) Remove and replace the titanium studs by following the specified portions of Sikorsky Alert Service Bulletin No. 92-63-014, Revision A, dated March 20, 2009. The Director of the Federal Register previously approved the incorporation by reference of this information on April 27, 2009 under 5 U.S.C. 552(a) and 1 CFR part 51 (74 FR 18977, April 27, 2009). Copies may be obtained from Sikorsky Aircraft Corporation, Attn: Manager, Commercial Technical Support, mailstop s581a, 6900 Main Street, Stratford, CT, telephone (203) 383-4866, e-mail address tsslibrary@sikorsky.com or at <http://www.sikorsky.com>. Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA,

call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(f) This amendment becomes effective on July 1, 2009.

Issued in Fort Worth, Texas, on June 9, 2009.

Mark R. Schilling,
Acting Manager, Rotorcraft Directorate,
Aircraft Certification Service.